

BEST AVAILABLE COPY

Amendments to the Claims

Claim 1 (Currently amended): A method of transmitting data, the method comprising:  
receiving [[a]] digital ~~bit~~bits of data from a memory unit;  
transforming the ~~bit~~bits of data into a transmission pulse, the transmission pulse having a pulse  
characteristic selected from a set of three or more predetermined pulse characteristics, one  
of which is corresponding to the ~~bit~~bits of data; and  
transmitting the transmission pulse over a guided medium without using a carrier signal to  
transmit the transmission pulse.

Claim 2 (Currently amended): The method of claim 1 wherein one set of the pulse  
characteristics correspond to the pulse duration and wherein length of the pulse duration  
corresponds to numbers 0 through 9.

Claim 3 (Original): The method of claim 1 wherein the data is in the form of universal  
character encoding.

Claim 4 (Currently amended): The method of claim 1 further comprising:  
receiving the transmission pulse from the guided medium; and  
transforming the transmission pulse into [[a]] digital ~~bit~~bits of data corresponding to the  
characteristics of the transmission pulse.

Claims 5-20 (Cancelled)

Claim 21 (Currently amended): A method of transmitting data, comprising:  
receiving at least ~~one~~two digital ~~bit~~bits of data from a memory unit;  
transforming the at least ~~one~~two digital ~~bit~~bits of data into a transmission pulse, the  
transmission pulse having a pulse ~~characteristic~~duration selected from a set of at least  
three predetermined pulse ~~characteristics~~duration, one of which is  
~~corresponding~~corresponds to the bits of data;

transmitting the transmission pulse without using a carrier signal to transmit the transmission pulse.

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claim 23 (Previously presented): The method of claim 21 wherein the transmission pulse is an electronic pulse and wherein the step of transmitting is transmitting over a guided media.

Claim 24 (Cancelled).

Claim 25 (Currently amended): The method of claim 21 wherein ~~the pulse characteristics are pulse durations~~, the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claims 26-27 (Cancelled).

Claim 28 (Currently amended): A method of transmitting data with photonic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of light, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which ~~is corresponding~~ corresponds to the bits of data; and  
transmitting the transmission pulse over fiber optic cable without using a carrier signal to transmit the transmission pulse.

Claim 29 (Cancelled).

Claim 30 (Previously presented): The method of claim 28 wherein the data is in the form of universal character encoding.

Claim 31 (Previously presented): The method of claim 28 further comprising:  
receiving the transmission pulse from the fiber optic cable; and  
transforming the transmission pulse into digital bits of data corresponding to the position of the transmission pulse.

Claims 32-37 (Cancelled).

Claim 38 (Previously presented): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse characteristic selected from a set of three or more predetermined pulse characteristics, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over a transmission medium without using a carrier signal to transmit the transmission pulse.

Claim 39 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the transmission pulses position in time.

Claim 40 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration between transmission pulses.

Claim 41 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the amplitude of the transmission pulse.

Claim 42 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration of the transmission pulse.

Claim 43 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the phase of the transmission pulse.

Claim 44 (Cancelled).

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

Claim 46 (Previously presented): The method of claim 38 further comprising:  
receiving the transmission pulse from the transmission medium; and  
transforming the transmission pulse into a digital bits of data corresponding to the specific characteristics of the transmission pulse.

Claim 47 (Previously presented): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over a transmission medium without using a carrier signal to transmit the transmission pulse.

Claim 48 (Cancelled).

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of universal character encoding.

Claim 50 (Previously presented): The method of claim 47 further comprising:  
receiving the transmission pulse from the transmission medium; and

transforming the transmission pulse into a digital bits of data corresponding to the position of the transmission pulse.

Claims 51-57 (Cancelled)

Claim 58 (Currently amended): A method of transmitting data, the method comprising:  
representing at least ~~one bit~~ two bits of data by varying a pulse characteristic of a time modulated ultrawideband pulse wherein the pulse characteristic is selected to be of one of a set of at least three pulse characteristics based on the value of the at least ~~one bit~~ two bits of data;  
and  
transmitting the time modulated ultrawideband pulse over a guided medium to a receiver.

Claim 59 (Previously presented): The method of claim 58 wherein each of the pulse characteristics within the set is a pulse duration.

Claim 60 (Previously presented): The method of claim 58 wherein each of the plurality of pulse characteristics within the set is a pulse position.

Claim 61 (Previously presented): The method of claim 58 wherein each of the plurality of pulse characteristics within the set is a pulse spacing.

Claim 62 (New): A method of transmitting data, comprising:  
representing a plurality of bits of data using a pulse characteristic of a single time modulated ultra wide pulse;  
transmitting the time modulated ultrawideband pulse.

Claim 63 (New): The method of claim 62 wherein the step of transmitting comprises transmitting the time modulated ultra wideband pulse over a guided medium to a receiver.

Claim 64 (New): The method of claim 62 wherein the pulse characteristic is a pulse duration.

Claim 65 (New): The method of claim 62 wherein the step of representing comprises encoding the plurality of bits into a base 10 representation, whereas the single time modulated ultra wideband pulse corresponds to a digit between 0 and 9.

Claim 66 (New): The method of claim 62 wherein the step of representing comprises encoding the plurality of bits into a number base greater than base 2.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ BLACK BORDERS

☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

☐ FADED TEXT OR DRAWING

☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING

☐ SKEWED/SLANTED IMAGES

☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS

☐ GRAY SCALE DOCUMENTS

☒ LINES OR MARKS ON ORIGINAL DOCUMENT

☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**